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10/817,387

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08/19/2005

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EXAMINER

VARGAS, DIXOMARA

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,387

Applicant(s)

MANNESCHI, ALESSANDRO

Examiner

Dixomara Vargas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21 is/are rejected.
- 7) ☒ Claim(s) 19,20 and 22-24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/03/04, 05/12/05, 05/16/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The disclosure is objected to because of the following informalities:

The SUMMARY OF THE INVENTION from pages 2-6 is a verbatim copy of the claims. This does not meet the objectives of the summary in 37 CFR 1.73 which states that "A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description." A further elaboration of this is given in MPEP 608.01(d) which states "Since the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention, the summary should be directed to the specific invention being claimed. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs." Claims are written in legal language to specify in broad terms the legal limitations of the invention, and are not intended to provide technical information to the public about the nature of the invention.

The first paragraph of 35 U.S.C. 112 states that "The specification shall contain a written description of the invention, and of the manner an process of making and using it, in such full,

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clear, concise, and exact terms as to enable any person skilled in the art to which it pertains". The legal language utilized for claims to set the metes and bounds of the patent protection does not fulfill this requirement. In addition, 37 CFR 1.75 (d) sets up the criteria that the specification is a dictionary for the claims and should provide clear support or antecedent basis for all terms used in the claims. Since the SUMMARY OF THE INVENTION merely duplicates the claims, it is not providing support for the claims.

The second paragraph of 35 U.S.C. 112 states that "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention". Since the claims are given at the end of the specification, it is redundant and superfluous to include them as part of the summary.

Since rules 37 CFR 1.73 and 37 CFR 1.75 clearly identify the SUMMARY OF THE INVENTION as a section which is separate and distinct from the CLAIMS and the other sections, the intended objective was not to provide an exact copy of the claims in the SUMMARY.

Appropriate correction is required.

Claim Objections

4. Claims 11-14 are objected to because of the following informalities: The term "RE" is considered a typographical error wherein the applicant intended to refer to "RF" instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. The term "very high" in claim 10 is a relative term which renders the claim indefinite.

The term "very high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

7. The term "lower inductance" in claim 10 is a relative term which renders the claim indefinite. The term "lower inductance" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

8. The term "low losses" in claim 16 is a relative term which renders the claim indefinite. The term "low losses" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

9. The term "suitable" in claim 16 is a relative term which renders the claim indefinite. The term "suitable" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. Note : Claims 10 and 16 have not been rejected over the prior art because, in light of the 35 U.S.C. 112 rejections supra, there is a great deal of confusion and uncertainty as to the proper interpretation of the limitations of the claims; hence, it would not be proper to reject the claims

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on the basis of prior art. As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962), a rejection under 35 U.S.C. 103 should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims.

11. Claim 17 recites the limitation "said NP coils" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

12. Claims 1-9, 11-15, 17-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zou et al (US 6,750,653 B1) in view of Buess et al. (US 5,233,300 A).

With respect to claim 1, Zou discloses a device for detecting at least a non-authorized material in a zone with protected access, the device being characterized by the fact that it comprises in combination: a supporting base designed to receive a single foot wearing a shoe of an individual to be inspected (Figure 1, #10); detector means adapted to detect a target material by employing at least one magnetic resonance technique (Abstract; Figure 4, foot and knee coil detection systems) and associated with the support base; and position identifying means on the support base suitable for imposing accurate positioning of the foot of the individual being inspected relative to the detector means (Figure 4, knee and foot coil ID sections).

In addition, Zou discloses the claimed invention as stated above except for the detection means being used to detect said non-authorized material. However, Buess discloses an MR system as seen on Figure 5 to inspect the person, including the feet with the shoes on in order to detect non-authorized materials such as explosives or narcotics (Abstract). Therefore, it would

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have been obvious to one of ordinary skill in the art at the time the invention was made to use Buess MR system to detect non-authorized materials with Zou's device for the purpose of examining the feet of the person further to avoid said person from introducing illegal substances to the designated place or avoid the introduction of substances that could be harmful for the people in the surroundings.

13. With respect to claim 2, Zou discloses the fact that the at least one magnetic resonance technique employed is Electronic Spin Resonance or is Nuclear Magnetic Resonance or is Nuclear Quadrupole Resonance or are Electronic Spin Resonance and Nuclear Magnetic Resonance, or are Electronic Spin Resonance and Nuclear Quadrupole Resonance, or are Nuclear Magnetic Resonance and Nuclear Quadrupole Resonance, or are Electronic Spin Resonance, Nuclear Magnetic Resonance, and Nuclear Quadrupole Resonance (Abstract).

14. With respect to claim 3, Zou discloses the supporting base comprises a block in the form of a step (Figure 1, #12 and #14) with the position-identifying means on its top surface (Figure 4, knee and foot coil ID sections).

15. With respect to claim 4, Zou discloses the detector means comprise two Helmholtz coils assembled on the two sides of the position-identifying means, the winding planes of said coils being positioned at a reciprocal distance equals to the mean radius of said coils (Figure 5, #16).

16. With respect to claim 5, see rejection of claims 1 and 4 above.

17. With respect to claim 6, Zou discloses the two Helmholtz coils (450, 460) are partially embedded inside the supporting base (Figures 1-3 shows the boot-like structure supporting the coil structures of Figures 5-7).

18. With respect to claim 7, Zou discloses the axis of the Helmholtz coils are shifted about 10 to 20 mm over the top surface of the supporting base such that the center of mass of the shoe content and the axis of the Helmholtz coils are situated on the same horizontal plane (Figures 1-3).

19. With respect to claim 8, Zou discloses the Helmholtz coils are equals (symmetric) and connected in series, in order to be supplied exactly with the same current (Column 3, lines 35-36; Figure 5, #16).

20. With respect to claim 9, Zou discloses the coil drivers are current controlled amplifiers in order to ensure the same magnetic generated field, independently from temperature and other environmental variations (Column 1, lines 23-50).

21. With respect to claim 11, Zou discloses the detector means further comprises a shoe-Tx/Rx RF antenna (Abstract), totally or partially wound around the heel of the shoe or around the whole shape of the shoe, in order to get the maximum coupling with the materials concealed in the heel or in the whole shape of the shoe (Figures 1-3 showing the shoe structure that uses coil configurations of Figures 5-7).

22. With respect to claim 12, Zou discloses the coil of the shoe-Tx/Rx RF antenna generates a field which is orthogonal or largely orthogonal to the magnetic polarizing field generated by the Helmholtz coils (Columns 2, lines 4-10).

23. With respect to claim 13, Zou discloses the coil of the shoe-Tx/Rx RF antenna is a single coil, and acts as transmitter and receiver at the same time (Column 3, lines 1-15).

24. With respect to claim 14, Zou discloses the coil of the shoe-Tx/Rx RF antenna is divided in at least two or more sections (Figure 2 and 3 shows the two sections of the system), one or

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more receivers and one or more emitters, preferentially placed in a way that the mutual inductive coupling between them is minimum (Column 3, lines 1-15).

25. With respect to claim 15, Zou discloses the RF shoe-Tx/Rx antenna is a high-Q inductor (Columns 1-2, lines 63-67 and 1-10 respectively).

26. With respect to claim 17, Zou discloses the claimed invention as stated above in paragraph 12 except for the detector means comprise additional RF coils, properly shaped, surrounding the ankle and calf area of the individual being inspected, said additional RF coils being outside of the uniform static magnetic field generated by the Helmholtz coils and, therefore, being used for the substance detection based on Nuclear Quadrupole Resonance. However, Buess discloses the detector means comprise additional RF coils, properly shaped, surrounding the ankle and calf area of the individual being inspected, said additional RF coils being outside of the uniform static magnetic field generated by the Helmholtz coils and, therefore, being used for the substance detection based on Nuclear Quadrupole Resonance (Figure 5, #11; Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Buess teachings about the detector means comprising additional RF coils, properly shaped, surrounding the ankle and calf area of the individual being inspected, said additional RF coils being outside of the uniform static magnetic field generated by the Helmholtz coils and, therefore, being used for the substance detection based on Nuclear Quadrupole Resonance with Zou's device for the purpose of detecting narcotics or explosives as taught by Buess (Abstract).

27. With respect to claim 18, Zou discloses the claimed invention as stated above in paragraph 12 except for means delivering visible or audible messages guiding the user during the

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successive detection steps. However, Buess discloses means delivering visible or audible messages guiding the user during the successive detection steps (Column 3, lines 45-68).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Buess' alarm system with Zou's device for the purpose of indicating the user of the presence of the unwanted substance in the person being examined.

28. With respect to claim 21, Zou discloses the claimed invention as stated above in paragraph 12 except for means for picking up vapors or traces of particles, and for analyzing said vapors or traces. However, Buess discloses picking up traces of particles (Column 5, lines 14-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Buess means for picking up traces of particles with Zou device for the purpose of indicating the user of the presence of the unwanted substance in the person being examined.

Allowable Subject Matter

29. Claims 19-20 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

30. The following is a statement of reasons for the indication of allowable subject matter:

- a. With respect to claim 19, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a device for detecting at least a non-authorized material in a zone with protected access, the device comprising

detector means that further comprises means adapted to detect metal objects in combination with the remaining limitations of claim 1 above.

b. With respect to claim 20, the claim has been found allowable due to its dependency on claim 19 above.

c. With respect to claims 22 and 23, the claims have been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a device for detecting at least a non-authorized material in a zone with protected access, the device comprising means for picking up vapors or traces comprise suction nozzles on the supporting base and on the vertical panels for picking up vapors or traces of particles in combination with the remaining limitations of claims 1 and 21 above.

d. With respect to claim 24, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a device for detecting at least a non-authorized material in a zone with protected access, the device comprising at least one vertical panel including means for displaying the height at which a prohibited object has been detected.

Conclusion

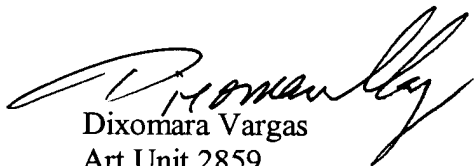
31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional prior art cited in the PTO 892 discloses MR system to image the feet or MR system to detect unauthorized materials such as narcotics or explosives.

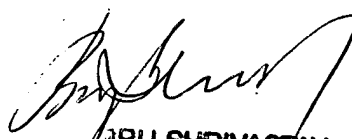
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dixomara Vargas
Art Unit 2859
August 16, 2005


PRIY SHRIVASTAV
PRIMARY EXAMINER